Work Order II Monday, March 17, 20			*11 <i>!</i>	5097*					Page 1
Item ID: D340 Revision ID:	7-5		Accept	*N900	04010	n* '	Setup Star	ı V.	. , .
Item Name: Ring Start Date: 3/17/ Required Date: 3/17/ Reference:		, , ,		Cust Item I Customer:	D:		Stop	' *N:	S2*
	cess Plan: MUJ	Date: <u>\</u> \ <u>\</u> -\ <u>\</u> 2-\f\	Tooling: SPC (Y/N):		ate:	- -	Run Star Stop	!//!	R1* R <i>2</i> *
Sequence ID/ Work Center ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool # . Plan	_	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr D3407	Revision Nbr Rev E			<u> </u>			0.801		
100 <b>*1</b> Waterjet	FLOW WATER JET Memo		0.00	·		23	#0		Jm 14-04-26
FLOW CNC Waterjet   オーリ	Dwg Rev Prog Rev		3407 (175mm)				* <b>*</b>		
110	QC2- Inspect parts of	-	0.00			20	∌		
*110*	Memo		0.00			23	BO		JM14-04-21

Memo

Quality Control

DQA:		. Date:			,							TRACT
DA Classida		Data			WORK ORDER NON-	-CC	ONFO	RMANCE / UP			,, , ,	AEROSPACE
QA Closed:		Date:				_	<u> </u>		V	Vork Order u	pdate only	
Work Orde	r:				DISPOSITION		ŀ		AGAINST D	EPARTMENT	/PROCESS	
					Rework			Skid-tube	Crosstube	7	Water Jet	Engineering
Part N	o.				Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	<u></u>				Use-as-is		Thern	noforming	Finishing	┥	re/Packaging	Other
NCR N	lo				Suspected Unapproved			Large Fab	Composite		Supplier	
Root		1		Desci	ription of work order update		Initial	Actio	n ·	Sign &	1	
Cause	Date	Step	Qty	<i>D</i> 030.	or non-conformance	ľ	nief Eng			Date	Verification	QC Inspector
Design							ner Eng	Descrip	-	Dute	Vermedion	Qe mspector
Doc/Data											1	
Equip/Tooling												
Handling/Pre									•			
Material											]	
Operator												
Offset/Setup												
Process												
Supplier												
Training											1	
Transport												
Unapproved					<u> </u>	<u> </u>						
· · · · · ·						FAI	ULT CA	TEGORY				
Landir	ng Gear			_	General		1		_	_	<b></b>	_
	Bending				Bend		₹	Program		Outside Dim	<b>⊢</b>	Pressure/Forced
	Centre No	ot Conce	ntric		BOM/Route		Grain		_	Over/Under	<b>}</b>	Set-up
-	Cracks				Broken/Damage/Defect	_	Hardwa			Part Incorre	<b>⊢</b>	Temperature/Cure
-	Crimp/Kir	nk/Ripple	e/Wave	_	Burrs	ļ	1 '	ion Incomplete/Und	· —	Part Lost/M	- <u>-</u> -	Weld
-	Cuffs				Contamination		-1	tions Incomplete/Ur	nclear	Part Moved		Wrong Stock Pulled
}	Crushing			<u> </u>	Countersink	_	1	gned/off center		Positioned V		ا ۔
}	Heat Trea		<b>T</b> l	<u> </u>	Cut Too Short	<u> </u>	Mislabe			Power Loss/	Surge	Other
}	Inspection	•	rube	<u> </u>	Drawing	_	Misread				· · · · · · · · · · · · · · · · · · ·	
}	Marks/Ch			-	Drill Holes		Off-set				· · · · · · · · · · · · · · · · · · ·	
}	Turning S Wave/Tw			_	Finish	<u> </u>	4	Calibration				
	wave/ Iw	ust in Tul	ue		Fit/Function		Jout of S	Sequence				

Work Ord Monday, March				*115	097*							Page 2
Item ID: Revision ID:	D3407-5			Accept	*N9000	ገ4በ <sup>-</sup>	1 ()	<b>)</b> *	Setup	Start Stop		\$1*
Item Name: Start Date: Required Date: Reference:	Ring 3/17/14 : 3/17/14	Start Qty: 20.00 Req'd Qty: 20.00	*20* *20*		Cust Item ID Customer:	<b>)</b> :					*N:	S2*
Approvals:		an:	Date:	Tooling:	Dat				Run	Start Stop	*NI	<b>२</b> 1*
	QC:		Date:	SPC (Y/N):	Dat	te:				этор	*NI	<b>ヲク*</b>
Sequence ID/ Work Center I	D	Operation Description	·	Set Up/ Run Hours	Tool ID		Plan Code	Accep Qty	ot Rej Qty		Reject Number	Insp. Stamp
120		QC8- Inspect parts - second	d check	0.00								
*120* QC		Memo		0.00 W/SV				35				
Quality Control				•					; (			
130		Identify as per dwg & Stoc	k Location: WAU	0.00							4.	
*120* Packaging		Manua		0.00				23		E	M-5-	12
Packaging		Memo *****STOCK	IN LARGE FAB****									
140		QC21- Final Inspection - V	Work Order Release	0.00						· \\	1	
*1 40* QC Quality Control		Memo		0.00					1-5		1-05	12
Quality Control								5	H	7	512	

DQA:			Date:											
QA Closed:			Date:			WORK ORDER NON	-C(	ONFO	RMANCE / L		Jork Ordor ur	adata anku		AEROSPACE I
QA Closed.			Date.							V	Vork Order up	date only	Ш	
Work Orde	er:					DISPOSITION				AGAINST D	EPARTMENT,	/PROCESS		
	-					Rework	]		Skid-tube	Crosstube	7	Water Jet		Engineering
Part N	No.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	П	Quality
						Use-as-is		Thern	noforming	Finishing	Rec/Sto	re/Packaging	$\Box$	Other
NCR I	No.			<del></del>		Suspected Unapproved	]		Large Fab	Composite		Supplier		
Root					Desc	ription of work order update		I Initial	Ac	ction	Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	nief Eng	Desc	cription	Date	Verification	n	QC Inspector
Design								· .						
Doc/Data	Ш		:											
Equip/Tooling	Ш		:											
Handling/Pre	Ш													
Material	Ш				ŀ									
Operator												ĺ		
Offset/Setup														
Process												ĺ		
Supplier												ĺ		
Training	Ш													
Transport	Ш		İ									ĺ		
Unapproved					<u> </u>							<u> </u>	]	
							FA	ULT CAT	TEGORY					
Landi	一				_	General		1 .		_	_			1
	$\boldsymbol{\vdash}$	Bending			<u> </u>	Bend		-	rogram	_	Outside Dim	}	${f  o}$	Pressure/Forced
	$\vdash$	Centre No	ot Concer	ntric		BOM/Route	<u>_</u>	Grain			Over/Under	<b>1</b>	$\vdash$	Set-up
		Cracks			<u> </u>	Broken/Damage/Defect		Hardwa			Part Incorre	<b>.</b>	-	Temperature/Cure
	_	Crimp/Kii	nk/Ripple	/Wave	_	Burrs	L	1	ion Incomplete/U	·	Part Lost/Mi	- }		Weld
	Н	Cuffs				Contamination		4	ions Incomplete	<b>—</b>	Part Moved	_	Ш	Wrong Stock Pulled
		Crushing			<u> </u>	Countersink		<b>-</b> 1	ned/off center	L	Positioned V	· ·		1
	-	Heat Trea				Cut Too Short	$\vdash$	Mislabe		L	Power Loss/	Surge		Other
	${}\dashv$	Inspectio		Tube		Drawing	_	Misread			<del></del>	<del></del>		
	${f -}$	Marks/Ch				Drill Holes	<u> </u>	Off-set			-			M
	-	Turning S	-			Finish		4	Calibration					
		Wave/Tw	ist in Tub	oe	ļ	Fit/Function		Out of S	Sequence					

\*115097\*

Parent Item:

Work Order ID: 115097

D3407-5

\*D3407-5\*

Parent Item Name: Ring

**Start Date:** 3/17/14

Required Date: 3/17/14

Page 1

**Start Oty: 20.00** 

Required Qty: 20.00

Comments:

IPP Rev:A New Issue 05-11-22 JLM

IPP Rev:B Now on Wateriet 08-05-14 JLM Verified By:DD

IPP Rev:C 08-08-12 revE as per dwg (ecn 08-507) DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M174B0.250X4.000		Purchased	No			100	f	46.8300	0.2666	5 <del>.61263</del>	2		
*M174R0 17-4 SS Bar .250 X 4.00	250X4 (	)()()*							**	5.6	2	_	Jm14-04-2
				Location	<u>.</u>	Loc	Qty	Loc Code					
				MAT049	· )	Δ	16.83						

8.58 m127719 127866 m127866 38.25

DQA:		Date:	:											7
					WORK ORDER NON-	-CC	ONFO	RMANCE / U				_	AEROSPACE	
QA Closed:		Date:								Wo	ork Order up	date only		_
Work Orde	er:				DISPOSITION				AGAINST	DEI	PARTMENT	/PROCESS		
					Rework	1		Skid-tube	Crosstube			Water Jet	Engineering	ı
Part N	lo.				Scrap			Machining	Small Fab		Pro	d. Eng. Coor.	Quality	
					Use-as-is			noforming	Finishing			re/Packaging	Other	ı
NCR N	lo				Suspected Unapproved			Large Fab	Composite			Supplier		۱
Root				Desci	ription of work order update	-	nitial	Act	ion		Sign &			٦
Cause	Dat	e Step	Qty		or non-conformance	Ch	ief Eng	Descr	ription		Date	Verification	QC Inspector	
Design														٦
Doc/Data														
Equip/Tooling				j										ĺ
Handling/Pre														
Material	_													
Operator														
Offset/Setup				ļ										ı
Process	_							-						
Supplier														
Training	_													
Transport	_	İ												
Unapproved				<u> </u>	VA.V.									4
						FA	ULT CAT	regory						_
Landir r	ng Gear			_	General	_	1		1		!	_	<b>–</b>	
	Bend	_		$\vdash$	Bend		4	rogram			Outside Dim	<u> </u>	Pressure/Forced	
		e Not Conce	entric	_	BOM/Route	<u> </u>	Grain				Over/Under	<u> </u>	Set-up	
	Crack		4		Broken/Damage/Defect	<u> </u>	Hardwa			-	Part Incorred	<del></del>	Temperature/Cure	
,		/Kink/Rippl	e/Wave	<u> </u>	Burrs	<u> </u>	1 .	ion Incomplete/Ur	-		Part Lost/Mi		Weld	
	Cuffs			<u> </u>	Contamination		4	tions Incomplete/L	Jnclear	_	Part Moved		Wrong Stock Pulled	
	Crush			<u> </u>	Countersink	$\vdash$	-1	gned/off center			Positioned V		¬	
-	Heat		<b>-</b> ,	<u> </u>	Cut Too Short	$\vdash$	Mislabe				Power Loss/	Surge	Other	4
ļ	_	ction Strip ir	1 Tube	<u> </u>	Drawing	$\vdash$	Misread							4
	<del></del>	s/Chatter		<u> </u>	Drill Holes	$\vdash$	Off-set							$\dashv$
	<b>─</b>	ng Sequence		<u> </u>	Finish	$\vdash$	4	Calibration -						4
	Wave	/Twist in Tu	be		Fit/Function		Out of S	Sequence						

DART AEROSPACE LTD	Work Order:	115097
Description: Tow Ring	Part Number:	D3407-5
Inspection Dwg: D3407 Rev: E		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

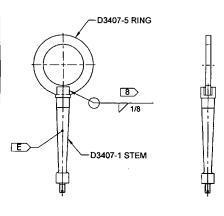
X First Article Prototype

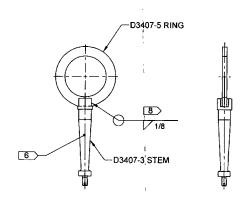
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.250	+/-0.010	0.2509	_		ν	JAMOS .
Ø3.000	+/-0.030	3,004"	-		V	
Ø2.050	+0.012/-0.001	2052"	_		ν	
0.75	+/-0.030	0.75"			V	
		-				
		·				
			DAS			

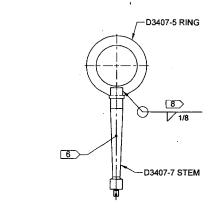
			27		
Measured by:	Jm	Audited by:	9-79	Prototype Approval:	N/A
Date:	14-04-26	Date:	14/5/1	Date:	N/A

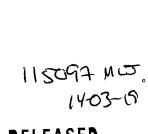
Date	Change	Revised by	Approved
07.02.02	New Issue	KJ/JLM	
07.09.18	Tolerance revised	KJ/EC	
08.05.14	Dimensions updated per Dwg Rev D	KJ/JLM ,	11
09.05.04	Dwg Rev updated	KJ/DD 😾	6/1
	07.02.02 07.09.18 08.05.14	07.02.02 New Issue 07.09.18 Tolerance revised 08.05.14 Dimensions updated per Dwg Rev D	07.02.02New IssueKJ/JLM07.09.18Tolerance revisedKJ/EC08.05.14Dimensions updated per Dwg Rev DKJ/JLM

		É		
QTY -041	QTY -043	QTY -045	PART NUMBER	DESCRIPTION
Х			D3407-041	TOW RING
	Х		D3407-043	TOW RING
		X	D3407-045	TOW RING
1			D3407-1	STEM
	1		D3407-3	STEM
1	1	1	D3407-5	RING
		1	D3407-7	STEM









**D3407-041 TOW RING** 

**D3407-043 TOW RING** 

<u>D3407-045 TOW RING</u> **♠** 

DESIG		197	DART AEROSPACE PORT HADLOCK		, INC.
REV.			ESCRIPTION	BY	DATE
Α	NEW ISS	SUE		CP	05.03.16
В	UPDATE	DIAMETER, TH	READ CLASS ADDED	CP	05.06.17
С	-1/-3 LOI	NGER FOR FIT	CP	05.09.09	
D	WITH D3	はの7_5 /7N	ROUND NOW FLAT FOR ASSEMBLY , C2-3); D3407-5 WAS ROUND NOW R ASSEMBLY WITH D3407-1/-3 (ZN ICTION FACILITY	РН	08.04.07
E	ADD D34 REVISEI REASON	107-045 (ZN B2- D NOTE 6 TO A 1: PRODUCTION	РН	08.07.23	

DESIGN	197	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN	Pet		
CHECKED	13-11	DRAWING NO.	REV. E
MFG. APPR.	6/g/	D3407	SHEET 1 OF S
APPROVED	1/14/	TITLE	SCALE
DE APPR.		TOW RING	NTS
DATE OR OZ 22		COPYRIGHT © 2005 BY DART AEROSPACE USA, INC.	

NOTES:
1) MATERIAL: N/A
2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3 (EXCEPT THREADS)
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: N/A
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3407-XXX" USING BLACK FINE POINT PERMANENT INK MARKER
7) WEIGHT: D3407-041 - 0.60 lbs, D3407-043 - 0.53 lbs, D3407-045 - 0.61 lbs
8) WELD PER DART QSI 004 ON ALL EDGES BETWEEN STEM AND RING

5

